Biological Conservation 228 (2018) 44–51

Contents lists available at ScienceDirect

Biological Conservation

journal homepage: www.elsevier.com/locate/biocon

Situating the Half-Earth proposal in distributive justice: Conditions for just conservation

Anna Wienhues*

University of Manchester, UK

ARTICLE INFO

Keywords:
Ecological justice
Environmental justice
Half-Earth proposal
Conservation
Distributive justice

ABSTRACT

The Half-Earth proposal (or 'Nature Needs Half') was put forward as an answer to the current sixth mass extinction crisis on Earth and sparked a debate with disagreement on empirical and normative questions. In this paper I focus on the so far undertheorised normative debate and will provide some conditions that would need to be fulfilled in order for the Half-Earth proposal to serve justice. As I will illustrate, to even begin with situating the Half-Earth proposal within an account of justice rests on an extensive rebuilding of our understanding of justice and many dimensions of justice have to be addressed before it is possible to determine whether the proposal could be regarded as all-things-considered just. I will start by focusing on the question of what would constitute a just global distribution of habitat by introducing the conceptual framework of distributive ecological justice – i.e., the notion that also nonhuman beings can have justice claims to certain 'goods' – and put it into conversation with considerations of environmental justice between humans. The upshot is that if a range of empirical and normative conditions are fulfilled, then the proposal can embody a distributively just compromise between ecological and environmental justice.

1. Introduction

The Half-Earth proposal was put forward most prominently to a non-expert audience by biologist Edward O. Wilson (2016) in support of the already existing 'Nature Needs Half' community. Its central idea can be found in earlier work that observed that an average of 50% of every region needs to be protected to protect biodiversity (e.g. Noss, 1992; Noss and Cooperrider, 1994). The proposal is meant as an answer to the current sixth mass extinction crisis on Earth, which in contrast to the previous mass extinction events on this planet, is caused by humans. It is suggested that this crisis can be mitigated somewhat by 'setting aside' half of the Earth's land and half of sea spaces for nonhuman living beings. Currently, however, this proposal is fiercely contested between its supporters and critics that draw on a range of different scholarly backgrounds.

The debate about the proposal is not only on an empirical but also a normative level and, thus, I want to shed some light on the normative claims and the challenges they involve. Recently, in this journal several scholars have started to discuss the need for justice to nonhumans and humans independently from, as well as with particular reference to, the Half-Earth proposal (Kopnina et al., 2018; Kopnina, 2016; Shoreman-Ouimet and Kopnina, 2015). Yet, in light of criticism of the claim that Nature Needs Half constitutes a just solution – that on the contrary it might even lead to considerable injustices (Büscher et al., 2016; Büscher et al., 2017; Fletcher and Büscher, 2016) – the proposal is still in need of further philosophical discussion. In particular, starting with the viewpoint that the sixth mass extinction constitutes an injustice (Cafaro, 2015), further critical discussion is needed – in particular, with a focus on the different dimensions of justice that apply to the case of the Half-Earth proposal. Whether the proposal constitutes what is required by justice or stands in opposition to doing justice is highly contingent on a multitude of empirical and normative considerations and commitments. This will become clearer when taking into consideration, on the one side, the enormous practical difficulties of putting anything close to the Half-Earth proposal into practice and, on the other side, the complicated nature of entangled and overlapping kinds of injustice that a commitment to global justice for both fellow humans and nonhumans generates. It is not a straightforward endeavour to find the path that would be all-things-considered just, because there are many issues to consider.

For the purpose of illuminating and resolving some of the normative questions generated by the proposal, I introduce my conceptual framework of distributive ecological and environmental justice. Ecological justice constitutes the notion that also nonhuman beings can have justice claims to certain 'goods' and when put into conversation with considerations of environmental justice between humans it can help to

* Sustainable Consumption Institute, The University of Manchester, 188 Waterloo Place, Oxford Road, M13 9PL Manchester, UK.
E-mail address: anna.wienhues@manchester.ac.uk.

https://doi.org/10.1016/j.biocon.2018.10.009
Received 5 July 2018; Received in revised form 19 September 2018; Accepted 5 October 2018

illuminate and resolve some of these questions. More specifically, could the Half-Earth proposal constitute a *distributively just compromise* globally between the demands of justice held by humans and nonhuman beings on a finite planet?

For the purpose of answering this question I will first introduce Nature Needs Half and the debate that emerged from it before laying out some issues of distributive justice in the environmental context, such as the centrality of the ecological space concept in section three. Then, in section four, I will discuss several dimensions of what would constitute a just global distribution of habitat, such as the problem of scarcity and issues of just implementation. I will then propose a range of conditions that the Half-Earth proposal would need to fulfil in order to satisfy the dual demands of distributive ecological and environmental justice. My conclusion will be that the proposal can only embody a distributively just compromise between ecological and environmental justice under the abovementioned conditions such as severe scarcity of habitat and the need to justly implement collective but unequally held duties of justice.

2. The Half-Earth proposal

As noted above, Wilson (2016) argues for setting aside half of the Earth for species other than humans. Because habitat destruction is the most important (but not sole) factor contributing to species extinction (Brooks, 2010; Pimm and Jenkins, 2010), Wilson proposes setting aside half the Earth as an emergency solution to the problem of rapidly declining biodiversity. The proposal is merely meant to mitigate, rather than avoid, the anthropogenic 'sixth extinction' of species on a mass scale, because this crisis is already in progress (Ceballos et al., 2015). While Wilson (2003, 2016) is the most prominent figure promoting the Half-Earth proposal, the idea has been supported and developed by several conservation biologists, conservationists, social scientists and philosophers (see Cafaro et al., 2017; Dinerstein et al., 2017; Kopnina, 2016; Kopnina et al., 2018; Locke, 2014; Noss et al., 2012; Sylven, 2011).

In practice, the crucial claim here is that realising the Half-Earth proposal would make it possible to protect more than 80% of all species (Wilson, 2016). 'Setting aside' means that these areas receive some level of protection. The International Union for Conservation of Nature (IUCN) identifies six categories of protected areas: strict nature reserve, wilderness area, national park, natural monument, habitat/species management area, protected landscape/seascape and managed resource protected area (Dudley and Stolton, 2008). Proponents of the Half-Earth proposal (e.g. Kopnina et al., 2018) have suggested that a mixture of all these six categories of protected areas – which differ in how much human activity they allow – can fulfil the conservation demands of the proposal.

It is put forward that, not only how much space, but also which particular spaces are protected, matters. Five priorities for protection are focused on:

(1) Protected areas need to cover all existent different ecosystems and be large enough that native species can be maintained 'in natural patterns of abundance and distribution', as well as to 'maintain ecological processes such as fire and flooding, and maintain resilience to short-and long-term environmental change' (Locke, 2014, p. 365; also Sylven, 2011). This quantifies as 25–75% of a 'typical region' (Noss et al., 2012).
(2) Protect at least half of 'wilderness' areas that are still 'mostly intact' (Nature Needs Half, 2017a).
(3) Protect remaining 'biodiversity hotspots' with high concentrations of endangered species (Wilson, 2016).
(4) Protected areas should be linked with 'corridors' that allow animals to roam, enable gene flow and climate change adaptation (Locke, 2014; Nature Needs Half, 2017b; Noss et al., 2012).
(5) Some protected areas will need biodiversity restoration (Wilson, 2016). One – arguably efficient and effective, but also controversial (Kopnina, 2016) – strategy to achieve this is 'rewilding' where, amongst a range of other activities (Lorimer et al., 2015), certain species are reintroduced into ecosystems. Big predators and herbivores in particular serve important biological functions and, thus, their reintroduction serves to counteract the 'trophic downgrading' of ecosystems (Sylven, 2011). However, for now I will exclude rewilding projects (and ecological restoration more broadly) because they generate additional normative questions about, for example, the risk involved in each intervention.

Considering that parts of the Earth might be already too degraded for conservation efforts, or are mainly used (and necessary) for human purposes, realising these goals would be ambitious – especially when comparing them to the current international conservation regime that includes the United Nations Convention on Biological Diversity with its *Strategic Plan for Biodiversity 2011–2020* (CBD, 2010).

2.1. The debate

The Half-Earth proposal has been met with considerable criticism due to the social implications of the proposal and the rather weak understanding of the social realities and processes found in its most prominent call for support by Wilson (2016). Most notably, Büscher et al. – a group of sociologists and geographers – claim that

> [t]he Half-Earth proposal, in short, is infeasible, and will have dangerous and counter-effective consequences if implemented. The only logical conclusion of the Half-Earth proposal would be *injustice* on a large scale without effectively addressing the roots of the ecological crisis (2016, p. 2, italics added).

This critique can also be found in Fletcher and Büscher (2016), who damningly conclude that Wilson's proposal 'would entail forcibly herding a drastically reduced human population into increasingly crowded urban areas to be managed in oppressively technocratic ways'. If such points of critique are accurate, then the Half-Earth proposal might be far off from constituting a just solution. In particular, Büscher et al. claim that the Half-Earth proposal:

(1) does not provide an answer to overconsumption,
(2) does not address the 'social impact' of such a division of the Earth (e.g. displacement, human isolation from nature, unequal impact on the poor and questions about power relations),
(3) says little about social and political sustainability of the conservation areas,
(4) does not offer an 'agenda for the biodiversity in a human half of Earth' (2016, p. 2).

The alternative they propose is a focus on de-growth economics and addressing (global and social) inequalities which would tackle 'the root causes of environmental degradation' while simultaneously benefiting humans (ibid., p. 3).

Their critique holds some power. Wilson demonstrates a strong belief in the capacity of a free market and technological innovation to reduce human environmental impact. Several ecological economists (such as Spash, 2010), for example, are considerably more sceptical about the ability of markets to deal with environmental problems, and Wilson's proposal lacks any engagement with the debates on this issue. I will not go into much detail about this debate at this point either, but it should be said that Wilson does not represent the whole range of scholarly perspectives in support of Nature Needs Half. In reply to critics, supporters of the proposal have further substantiated their stance and critiqued Wilson's market-based solution. Cafaro et al. (2017) and Kopnina et al. (2018) point out that they are in full agreement with the critique of the neoliberal growth paradigm and that the proposal to protect half of the Earth is merely a necessary, not